



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,240	03/30/2004	Erik de la Iglesia	006897.P001	8139
78855	7590	04/28/2009		
Patent Capital Group 6119 McCommas Blvd Dallas, TX 75214			EXAMINER SHAW, PELING ANDY	
			ART UNIT 2444	PAPER NUMBER
			NOTIFICATION DATE 04/28/2009	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

thomasframe@patcapgroup.com
roseanne.cisneros@patcapgroup.com
patbradford@patcapgroup.com

Office Action Summary	Application No. 10/815,240	Applicant(s) DE LA IGLESIA ET AL.	
	Examiner PELING A. SHAW	Art Unit 2444	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/09/2009 has been entered. The amendment to the specification to change the title of application is reviewed and accepted. Claims 1, 12 and 17 are amended. Claims 1-20 are currently pending.

2. Amendment received on 08/20/2008 has been entered into record. Claims 1, 12-13 and 17-20 are amended.

Priority

3. This application has claimed priority from provisional application 60528643 filed on 12/10/2003. The filing date is 03/30/2004.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rowley et al. (US 7277957 B2), hereinafter referred as Rowley and further in view of Saulpaugh et al. (US 7072967 B1), hereinafter referred as Saulpaugh.

- a. Rowley shows (claim 1) an apparatus (Fig. 1 and Fig. 2) comprising: a network interface module to connect the apparatus to a network (column 3, lines 28-33; Ethernet card as a network tap device); a packet capture module to intercept packets being transmitted on the network (column 3, lines 33-35: a packet capture engine); an object assembly module to reconstruct flows representing objects being transmitted on the network from the intercepted packets (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved; column 4, lines 29-34: data from the selected packets may be reconstructed into data files and script files used to display web pages and other content; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files); an object classification module to determine a type of content of (column 4, lines 63-65: determine the type of packets; column 6, lines 6-11: packet indicates a script file type to be displayed as page, e.g. HTML, Java Script

Art Unit: 2444

and Active Server Pages; multi-packet recompilation module set similar directories for local cache of files) and reconstruct objects from flows (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files); an object store module to store the objects (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved); and a user interface to enable a user to search objects stored in the object store module (column 7, line 66-column 8, line 1: web browser or display program capable display text, graphic and other visual information on a computer monitor). Rowley does not show (claim 1) wherein the objects are searched based a query, which includes search criteria used to identify selected objects that match the search criteria. However using browser to search and identify objects based upon search criteria seems to be known to one skill in the art.

- b. Saulpaugh shows search based on search criteria (column 33, line 55-column 34, line 3); database query based upon name or strings (column 41, line 60-column 42, lines 10); query results cache (column 48, lines 33-52); and search tag may contain optional set of search criteria (column 64, line 10-column 65, line 9) in an analogous art for the purpose of efficient construction of message endpoints.
- c. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Rowley's functions of reconstructing network

Art Unit: 2444

- communications with Saulpaugh's functions of message query based on name or string.
- d. The modification would have been obvious because one of ordinary skill in the art would have been motivated to data selection or query based on name or string as per Saulpaugh's teaching in support the display of data collected and reconstructed as per Rowley (column 1, lines 54-65) and Saulpaugh (column 82, lines 28-52)'s teaching.
 - e. Regarding claim 2, Rowley shows wherein the object assembly module comprises a reassembler to assemble the intercepted packets into flows (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files).
 - f. Regarding claim 3, Rowley shows wherein the object assembly module further comprises a protocol demultiplexer to sort the assembled flows by protocol (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved ; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files).
 - g. Regarding claim 4, Rowley shows wherein the object assembly module further comprises a protocol classifier to extract the objects from the sorted assembled flows (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved ; column 6, lines 59-65:

Art Unit: 2444

- local cache holding word processing documents, PDF files, audio files and video files).
- h. Regarding claim 5, Rowley shows wherein the object classification module determines whether objects are stored in the object store or discarded based on one or more capture rules (column 3, lines 62-67: packet not needed for the subsequent reconstruction of the network communication session).
 - i. Regarding claim 6, Rowley shows wherein the capture rules are user-configurable through the user interface (column 1, line 66-column 2, line 9: selecting a portion of the packets captured by a sniffer during a given time interval; column 3, lines 43-47: selecting captured data during a specified time interval).
 - j. Regarding claim 7, Rowley shows wherein the object classification module determines a location that each object is stored in the object store based on the type of content of each object (column 6, lines 38-48: directory structure based on image file type; column 6, lines 49-65: directory structure for graphics files, text files, audio files and video files).
 - k. Regarding claim 8, Saulpaugh shows wherein the object classification module determines the type of content of each object using a signature of each object (column 82, lines 28-52: an object signature may be included to identify the object's class).
 - l. Regarding claim 9, Rowley shows wherein the user interface comprises a graphical user interface (column 7, line 66-column 8, line 1: web browser or display program capable display text, graphic and other visual information on a computer monitor).

Art Unit: 2444

Together Rowley and Saulpaugh disclosed all limitations of claims 1-9. Claims 1-9 are rejected under 35 U.S.C. 103(a).

5. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rowley, Saulpaugh and further in view of Barnett et al. (US 7290048 B1), hereinafter referred as Barnett.

- a. Rowley shows claim 1 as above. Neither Rowley nor Saulpaugh shows (claim 10) wherein the object store module comprises a content store to store the objects and a tag store to index the objects stored in the object store. However, Rowley does show identifying protocol and collecting packets into a protocol sorted list; selecting, reconstructing and displaying data information, e.g. web pages, from a protocol session.
- b. Barnett shows (claim 10) wherein the object store module comprises a content store to store the objects and a tag store to index the objects stored in the object store (column 10, lines 52-61: tags and other columns support transaction recognition, pointer to original sources of data for traceability; column 22, lines 18-37: tags interpreted are time, data, file name, line numbers, graph object types, source, destination and tool tip information) in an analogous art for the purpose of data collection, data analysis, and model generation for the performance analysis of enterprise applications.
- c. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Rowley's functions of reconstructing network communications with Saulpaugh's functions of message query based on name or string and Barnett's functions of using tags in support of performance analysis.

Art Unit: 2444

- d. The modification would have been obvious because one of ordinary skill in the art would have been motivated to tag and identify data as per Barnett's teaching in support the data collection and reconstruct as per Rowley (column 1, lines 54-65), Saulpaugh (column 82, lines 28-52) and Barnett (column 7, lines 35-45)'s teaching.
- e. Regarding claim 11, Barnett shows wherein the content store comprises a canonical storage, and the tag store comprises a database (column 12, lines 4-12: canonical form for abstract module, sources supply lines information form text file, binary file or database; column 13, lines 26-48: data consists of network traces consisting of arrays mutated into hash tables to be addresses by column header vs. row and column locations).

Together Rowley, Saulpaugh and Barnett disclosed all limitations of claims 10-11. Claims 10-11 are rejected under 35 U.S.C. 103(a).

6. Claims 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rowley in view of Saulpaugh and Barnett.

- a. Rowley shows (claim 12) an method comprising: intercepting data being transmitted on a network (column 3, lines 33-35: a packet capture engine); reconstructing flows of objects being transmitted on the network from the intercepted data (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved; column 4, lines 29-34: data from the selected packets may be reconstructed into data files and script files used to display web pages and other content; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files); classifying the

Art Unit: 2444

reconstructed objects by content type (column 4, lines 63-65: determine the type of packets; column 6, lines 6-11: packet indicates a script file type to be displayed as page, e.g. HTML, Java Script and Active Server Pages); and storing the classified objects (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved). Rowley does not show (claim 12) creating a tag to describe each reconstructed object; storing tags; indexing the stored objects to enable searching of the stored objects via the tags; and wherein the objects are searched based on a query, which includes search criteria used to identify selected objects that match the search criteria. However, Rowley does show identifying protocol and collecting packets into a protocol sorted list as per IP address and port number to categorize packets (column 4, lines 42-65); selecting, reconstructing and displaying data information, e.g. web pages, from a protocol session, including the directory and file structures (column 7, lines 37-51).

- b. Barnett shows (claim 12) creating a tag to describe each reconstructed object; storing tags; storing tags; indexing the stored objects to enable searching of the stored objects via the tags (column 10, lines 52-61: tags and other columns support transaction recognition, pointer to original sources of data for traceability; column 22, lines 18-37: tags interpreted are time, data, file name, line numbers, graph object types, source, destination and tool tip information) in an analogous art for the purpose of data collection, data analysis, and model generation for the performance analysis of enterprise applications.

Art Unit: 2444

- c. Saulpaugh shows search based on search criteria (column 33, line 55-column 34, line 3); database query based upon name or strings (column 41, line 60-column 42, lines 10); query results cache (column 48, lines 33-52); and search tag may contain optional set of search criteria (column 64, line 10-column 65, line 9) in an analogous art for the purpose of efficient construction of message endpoints.
- d. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Rowley's functions of reconstructing network communications with Saulpaugh's functions of message query based on name or string and Barnett's functions of using tags in support of performance analysis.
- e. The modification would have been obvious because one of ordinary skill in the art would have been motivated to tag and identify data as per Barnett's teaching in support the data collection and reconstruct as per Rowley (column 1, lines 54-65), Saulpaugh (column 82, lines 28-52) and Barnett (column 7, lines 35-45)'s teaching.
- f. Regarding claim 13, Rowley shows wherein reconstructing the objects comprises: sorting the intercepted data into packets; and sorting the assembled flows by protocol (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved ; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files).
- g. Regarding claim 14, Rowley shows further comprising determining whether each object is to be stored based on a set of one or more capture rules (column 3, lines 62-

Art Unit: 2444

- 67: packet not needed for the subsequent reconstruction of the network communication session).
- h. Regarding claim 15, Saulpaugh shows further comprising receiving a query over the stored objects (column 27, lines 10-29: query for a message response).
 - i. Regarding claim 16, Saulpaugh shows further comprising searching the indexed objects, and retrieving objects matching the query (column 41, line 60-column 42, lines 10: database query based upon name or strings; column 48, lines 33-52: query results cache);
 - j. Regarding claim 17, Rowley shows an machine-readable storage medium having stored thereon data representing instructions (Fig. 1 and Fig. 2) that, when executed by a processor, cause the processor to perform operations comprising: intercepting data being transmitted on a network (column 3, lines 33-35: a packet capture engine); reconstructing objects being transmitted on the network from the intercepted data (column 4, lines 29-34: data from the selected packets may be reconstructed into data files and script files used to display web pages and other content); classifying the reconstructed objects by content type (column 4, lines 63-65: determine the type of packets; column 6, lines 6-11: packet indicates a script file type to be displayed as page, e.g. HTML, Java Script and Active Server Pages); and storing the classified objects (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved). Barnett shows creating a tag to describe each reconstructed object; storing tags; storing tags; indexing the stored objects to enable searching of the stored objects via the tags

Art Unit: 2444

- (column 10, lines 52-61: tags and other columns support transaction recognition, pointer to original sources of data for traceability; column 22, lines 18-37: tags interpreted are time, data, file name, line numbers, graph object types, source, destination and tool tip information). Saulpaugh shows search based on search criteria (column 33, line 55-column 34, line 3); database query based upon name or strings (column 41, line 60-column 42, lines 10); query results cache (column 48, lines 33-52); and search tag may contain optional set of search criteria (column 64, line 10-column 65, line 9).
- k. Regarding claim 18, Rowley shows wherein reconstructing the objects comprises: sorting the intercepted data into packets; and sorting the assembled flows by protocol (column 4, lines 9-12: packets are sequentially read, decoded, checked and added to the protocol sorted list until the last packet has been retrieved ; column 6, lines 59-65: local cache holding word processing documents, PDF files, audio files and video files).
- l. Regarding claim 19, Rowley shows wherein the instructions further cause the processor to determine whether each object is to be stored based on a set of one or more capture rules (column 3, lines 62-67: packet not needed for the subsequent reconstruction of the network communication session).
- a. Regarding claim 20, Saulpaugh shows wherein the instructions further cause the processor to receive a query over the stored objects, search the indexed objects in response to the query, and retrieve objects matching the query (column 27, lines 10-

Art Unit: 2444

29: query for a message response; column 41, line 60-column 42, lines 10: database query based upon name or strings; column 48, lines 33-52: query results cache).

Together Rowley, Saulpaugh and Barnett disclosed all limitations of claims 12-20. Claims 12-20 are rejected under 35 U.S.C. 103(a).

Response to Arguments

7. Applicant's arguments filed on 02/09/2009 have been fully considered, but they are not persuasive.

- a. Applicant has amended independent claims 1, 12 and 17 with the limitation of "wherein the objects are searched based a query, which includes search criteria used to identify selected objects that match the search criteria" and argued that no references cited have disclosed the limitation (see 2nd to last paragraph on page 7 of current amendment).
- b. Examiner has reviewed the amended claim change in light of applicant's original specification and claim set and found description on the limitation in paragraph 34 of applicant specification. Examiner has reviewed the claim rejections as per office action mailed on 11/07/2008 and applied prior arts. Saulpaugh was brought to show claims 15 and 16 on receiving a query for searching a indexed objected matching the query. Examiner has further searched on the current amended limitation, especially on searching based upon search criteria. Examiner has found Saulpaugh has shown as paragraph 34 of applicant specification similar function in column 33, line 55-column 34, line 3: search based on search criteria; in column 41, line 60-column 42, lines 10: database query based upon name or strings; in column 48, lines 33-52: query results cache; and in column 64, line 10-column 65, line 9: search tag may contain optional set of search criteria. Using browser in query based on a combination of names or text seems to be well known to one skill in the art as shown above in Saulpaugh's disclosure. Claim rejections are updated to reflect current claim amendments.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peling A. Shaw whose telephone number is (571) 272-7968. The examiner can normally be reached on M-F 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Peling A Shaw/
Examiner, Art Unit 2444